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10/21/98



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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PERMANENT

J

NOV106BCON

IN-11/1021

EXAMINER

YEE, D

ART UNIT	PAPER NUMBER
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1742

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DATE MAILED:

10/21/98

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on applicant's remarks filed 9-25-98

☒ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-12, 34-38 and 41-49 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-12, 34-38 and 41-49 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner. Abstract is required in the specification.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of Reference Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

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Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 to 12, 34 to 38 and 41 to 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilhelmsson, and Culling and Way et al.

Each reference teaches an alloy with constituents whose wt% ranges overlap those recited in one or more of the recited claims; such overlap renders applicant's composition prima facie obvious despite differences in non-overlapping areas.

Response to Arguments

3. Applicant's arguments filed September 25, 1998 have been fully considered but they are not persuasive.

It was argued that Wilhelmsson does not teach a composition substantially free of Si, and there is no overlap of Si ranges and no motivation for the skilled artisan to eliminate Si. It is the examiner's position that Wilhelmsson discloses a cast alloy composition on lines 35 to 53 in column 6 which has alloying constituents whose wt% ranges overlap those recited by the claim. In particular, note Si is at up to 3%. The term "up to" is defined as a lower limit of zero; hence Si

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need not be present and therefore would be within applicant's limitation of "substantially free of silicon". In regard to the B content, applicant submitted there was no overlap. Contrary to this statement, note that applicant's claim 10 recites greater than 0 to 5% by wt Boron and Wilhelmsson teaches less than 0.008% Boron. Therefore an amount of say 0.0075% Boron would be greater than zero and hence would overlap with applicant's Boron range.

It was submitted that Culling's alloy contains up to 3%Si and 0.05 to 0.45%Ti. It is the examiner's position that Si has a lower limit of zero and does not have to be present and therefore closely meets the claim. Furthermore, Ti is present in such small amounts that it would seem that 0.05% Ti would be within applicant's range of substantially free of Ti. Note that "substantially free" does not suggest Ti not to be present but rather being present at a very low level, which is not numerically defined by applicant.

It was argued that Way alloy does not include Nb and includes a substantial presence of Si. It is the examiner's position that Way does include Nb. See line 26, claim 1, column 6 which recites columbium (equivalent to niobium). Moreover, Si is up to about 1.5% and therefore has a lower limit of zero and need not be present. Also note examples where Si is present as low as 0.13% in Example XI. It would seem 0.13% Si would be within applicant's limitation of "substantially free of Si" since the presence of Si is not substantially excluded and also there is no definitive numerical limitation.

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Conclusion

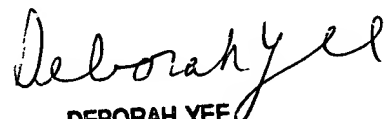
4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is (703) 308-1102.

dy

October 20, 1998


**DEBORAH YEE
PRIMARY EXAMINER
GROUP 1300**